US 20160338602A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2016/0338602 A1**

Oksala (43) **Pub. Date: Nov. 24, 2016**

(54) **DEVICE AND METHOD FOR MEASURING ARTERIAL SIGNALS**

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(21) Appl. No.: **15/111,678**

(22) PCT Filed: **Jan. 15, 2015**

(86) PCT No.: **PCT/FI2015/050024**

§ 371 (c)(1),
(2) Date: **Jul. 14, 2016**

(30) **Foreign Application Priority Data**

Jan. 16, 2014 (FI) 20145038

Publication Classification

(51) **Int. Cl.**
A61B 5/021 (2006.01)
A61B 5/00 (2006.01)

(52) **U.S. Cl.**
CPC ***A61B 5/02125*** (2013.01); ***A61B 5/6825*** (2013.01); *A61B 5/0261* (2013.01)

(57) **ABSTRACT**

A device (**100**) for measuring arterial (**107**) signals, and especially pulse wave velocity, comprises a sensor array comprising a plurality of sensors (**101-04**) for detecting arterial signals and providing corresponding measuring data. A signal detecting means (**106**) is used for detecting signal strength of each of said sensors (**101-104**) separately based on said measuring data of each sensor. A selection logic (**108**) is used for selecting the measuring data of the sensors providing signals with highest signal strength as a first measuring data (signals responsible of arterial signals), whereupon the device is configured to use said selected first measuring data for determination of pulse wave velocity and wherein measuring data of at least one another sensor not providing said first measuring data is used as a second measuring data.